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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,829	08/27/2001	Naoki Ayai	040256-0123	1089

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EXAMINER	
DINH, TUAN T	
ART UNIT	PAPER NUMBER
2827	

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/938,829	AYAI, NAOKI	
	Examiner	Art Unit	
	Tuan T Dinh	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

The request filed on 06/16/03 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/938,829 is acceptable and a RCE has been established. An action on the RCE follows.

Claim Objections

1. Claim 1 is objected to because of the following informalities:

Claim 1, line 7, "a group of oxide superconductors" should be –a group of said plurality of oxide superconductors--.

Claim 1, line 8, "oxide semiconductor" should be –oxide superconductor--

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-6, and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Seuntjens et al. (U. S. Patent 6,397,454).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claim 1, Seuntjens et al. disclose an oxide superconducting wire (20, column 7, line 8) as shown in figures 1-2 comprising:

a plurality of oxide superconductors (strands 22, column 7, line 9, column 8, column 8, lines 22-23), each oxide superconductor made of at least one filament (24, column 7, lines 10-11), and each of said plurality of oxide superconductors (22) being physically separate and not in direct physical contact with others of said plurality of oxide superconductors (see figure 2);

a ceramic layer (28, column 7, line 13) enclosing each of said plurality of oxide superconductors, such that at least a group of said plurality of oxide superconductors is enclosed within a contiguous ceramic region of said ceramic layer, and each oxide superconductor with said group is individually enclosed by said ceramic region, said ceramic layer (28) becoming non-conducting at operational temperature of said oxide superconductors (10), and;

a metal sheath (30, column 7, line 23) directly coating said ceramic layer (28).

Regarding claim 3, Seuntjens et al. disclose the oxide superconducting wire (20) as shown in figures 1-2 wherein said oxide superconductors (22) are configured to spirally extend around the central axis of said oxide superconducting wire.

Regarding claim 4, Seuntjens et al. disclose the oxide superconducting wire (20) as shown in figures 1-2 wherein said **ceramic layer contains an oxide** of bismuth or zirconium (column 8, lines 10-17).

Regarding claim 5, Seuntjens et al. disclose the oxide superconducting wire (20) as shown in figures 1-2 wherein said oxide superconductors are bismuth-based superconductors (column 8, lines 22-67, column 9, lines 1-34).

Regarding claim 6, Seuntjens et al. disclose the oxide superconducting wire (20) as shown in figures 1-2 wherein said ceramic layers contains an oxide including an alkali earth metal and copper (column 8, lines 44-65).

Regarding claim 8, Seuntjens et al. disclose the oxide superconducting wire (20) as shown in figures 1-2 comprising:

a plurality of filaments (24), each filament formed of an oxide superconductor (22); a ceramic layer (28) formed by extrusion, said ceramic enclosing said oxide superconductors (24-figure 2) and becoming non-conducting at an operating temperature of said oxide superconductors, wherein said ceramic layer enclosed an is in contact with each of said plurality of filaments (24), and a metal sheath (30) encasing said ceramic layer.

Regarding claim 9, Seuntjens et al. disclose the oxide superconducting wire (20, column 7, line 8) as shown in figures 1-2, and 7 comprising:

a plurality of oxide superconductors (strands 22, column 7, line 9, column 8, column 8, lines 22-23), each oxide superconductor made of at least one filament (24, column 7, lines 10-11), and each of said plurality of oxide superconductors (22) being physically separate and not in direct physical contact with others of said plurality of oxide superconductors (see figure 2);

a ceramic layer (28, column 7, line 13) enclosing each of said plurality of oxide superconductors (22), such that at least a group of said plurality of oxide superconductors is enclosed within a contiguous ceramic region of said ceramic layer, and each oxide superconductor with said group is individually enclosed by said ceramic region, said ceramic layer (28) becoming non-conducting at operational temperature of said oxide superconductors (10),

a silver sheath (14-figure 1, 26-figure 2, and 84-figure 7, column 3, lines 62-65, column 18, lines 42-43) interposed between each of said plurality of oxide superconductors and said ceramic layer; and;

a metal sheath (30, column 7, line 23) directly coating said ceramic layer (28).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seuntjens et al. (U. S. Patent 6,397,454) in view of Cotton et al. (U. S. Patent 5,908,812).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Suentjens et al. disclose al of the limitations of claimed invention as above, except for the metal sheath including silver. Cotton discloses the oxide

superconducting wire as shown in figures 1-3 having a metal sheath (30) made of silver (column 4, lines 55-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a metal sheath made of silver in the oxide superconductor wire of Suentjens et al., as taught by Cotton, for the purpose of providing a high critical temperature or critical current density.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Benz, Tanaka et al. Yu, and Snitchler et al disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T Dinh whose telephone number is 703-306-5856. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 703-308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0658.

Tuan Dinh
September 19, 2003.